Move Semantics Exercises

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Value Semantics

- Describe some situations where the compiler adds copy operations in traditional C++
- Are there any ways these can safely be avoided?

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Value Semantics

- Why are these copy operations considered undesirable?
- Why do other languages do not have this problem?

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Value Semantics

- What techniques does traditional C++ provide for reducing the copying overhead?

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Move Semantics

- Explain briefly what is meant by "move semantics" in Modern C++
- Describe what happens what the following operations are performed on two variables:

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rvalue

- Under what circumstances is it safe to move data from a object?
- What term is used to describe an object in these circumstances?

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Pass by move

- If we have a function which takes an argument by value, in what circumstances will an object be moved into this argument?
- What happens if these circumstances do not apply?
- Is pass by move compatible with existing code written for older versions of C++?

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Moving a function call argument

- A function can specify that an argument can only be moved into
- Why is this useful?
- What happens if the function is passed an object that cannot be moved?

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